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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,254	07/11/2003	Matthew Dubin	H17-26023-01	3135
128	7590	06/09/2004	EXAMINER	
HONEYWELL INTERNATIONAL INC. 101 COLUMBIA ROAD P O BOX 2245 MORRISTOWN, NJ 07962-2245			JUBA JR, JOHN	
		ART UNIT	PAPER NUMBER	
			2872	

DATE MAILED: 06/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/618,254	DUBIN ET AL. <i>JK</i>
	Examiner	Art Unit
	John Juba, Jr.	2872

-- The MAILING DATE of this communication appars on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 18,38-48,60-73 and 98-122 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_ is/are allowed.
- 6) Claim(s) \_\_\_\_ is/are rejected.
- 7) Claim(s) \_\_\_\_ is/are objected to.
- 8) Claim(s) 18,38-48,60-73 and 98-122 are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 11 July 2003 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_.

***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 38 – 49, 113, and 114, drawn to polarizing beam splitters in particular angular relation, classified in class 359, subclass 483.
- II. Claims 62 - 64, drawn to a plurality of polarizing units each in combination with an additional optical function, classified in class 359, subclass 484.
- III. Claims 65 - 67, drawn to a plurality of selective polarizing units, each in combination with an additional optical function, classified in class 359, subclass 502.
- IV. Claims 68 - 73, drawn to a plurality of selective polarizing steps, each in combination with a particular additional optical function, classified in class 359, subclass 498.
- V. Claims 18, 99 – 112, and 115 - 117, drawn to a plurality of polarizing beam splitters in some angular relation and combined with a particular additional optical function, classified in class 353, subclass 30.
- VI. Claims 118 - 122, drawn to a plurality of selective polarizers, each in combination with a particular additional optical function, classified in class 353, subclass 31.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II - VI are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if

they are shown to be separately usable. In the instant case, invention I has separate utility such as in a monochromatic image projector, head-up display or helmet-mounted display. See MPEP § 806.05(d).

Inventions I and V - VI are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because claim 98 evidences that the combination is regarded as separately patentably without having the polarizing beam splitters arranged at the angle particularly recited in claim 38 of the subcombination. The subcombination has separate utility such as in a projection exposure apparatus where attenuation is undesirable.

Inventions II and III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention II has separate utility such as in a optical step attenuator, and invention III has separate utility in a multicolor projector wherein color balance is achieved through the beam splitter coatings, themselves. See MPEP § 806.05(d).

Inventions II and IV are related as process (claims 68 – 73) and apparatus (Group II) for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by

hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus can be used to practice a process of applying step attenuation, rather than selective spectral attenuation.

Inventions II and IV are also related as combination (claims 68 – 73) and subcombination (Group II). Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because claim 65 evidences that the combination is regarded as separately patentable including spectral separation and any additional optical function, rather than the attenuation particularly recited in the subcombination. The subcombination has separate utility such as in a step attenuator.

Invention II is related to invention V as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention II has separate utility such as in a optical step attenuator, and invention V has separate utility in a monochromatic display/projector. See MPEP § 806.05(d).

Inventions II and VI are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and

(2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because claim 65 evidences that the combination is considered as separately patentable with any additional optical function, such as focusing, and without the attenuation function recited in the subcombination. The subcombination has separate utility such as in a step attenuator.

Inventions III and IV are related as process (claims 68 – 73) and apparatus (Group III) for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus can be used to practice a process of focusing/collimating/projection color images without attenuation, rather than selective spectral attenuation.

Inventions III and IV are also as combination (claims 68-73) and subcombination(Group III). Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because claim 60 evidences that the combination without the steps of attenuation is regarded as separately patentable. The subcombination has separate

utility such as in collimating and superimposing a plurality of unattenuated wavelength division multiplexed optical carriers.

Invention III is related to invention V as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention III has separate utility such as in a wavelength multiplexer that collimates modulated laser sources, and inventions V and VI have utility in a monochromatic image projector. See MPEP § 806.05(d).

Inventions III and VI are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because claim 62 evidences that the combination is regarded as separately patentable without the color selective polarization beam splitters. The subcombination has separate utility such as in a wavelength division multiplexer that collimates sources rather than attenuating them.

Inventions IV and V - VI are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus of groups V and VI can be used to practice a

process of projecting monochromatic images without spectrally selective attenuation; the apparatus of group VII can be used to separate a plurality of wavelength division multiplexed optical signals.

Invention IV is also related to invention V as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because claim 68 evidences that the method is regarded as separately patentable irrespective of the polarizing beam splitters possibly being parallel to each other. The subcombination has separate utility such as in a monochromatic image projector.

Inventions IV and VI are also related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention IV has separate utility such as in a geometry permitting the polarizing beam splitters to be oriented mutually parallel. See MPEP § 806.05(d).

Inventions V and VI are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the

particulars of the subcombination as claimed because claims 62 and 65 evidences that the apparatus is regarded as separately patentable without details to the polarizer inclinations recited in the subcombination. The subcombination has separate utility such as in a monochromatic image projector.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, and because the searches for the various groups are not coextensive, restriction for examination purposes as indicated is proper.

Claim 98 links inventions V and VI; claim 60 link(s) inventions II, III, V, and VI. For the purposes of restriction, claim 61 was regarded as not patentably distinct from claim 60. Thus, if any of inventions II, III, V, or VI is elected, then claims 60 and 61 will also be examined. If either of inventions V or VI is elected, then claims 60 and 61 will be examined with the invention, along with linking claim 98.

The restriction requirement among the linked inventions is subject to the nonallowance of the linking claim(s). Upon the allowance of a linking claim, the restriction requirement as to the linked inventions shall be withdrawn and any claim(s) depending from or otherwise including all the limitations of the allowable linking claim(s) will be entitled to examination in the instant application.

Applicant(s) are advised that if any such claim(s) depending from or including all the limitations of the allowable linking claim(s) is/are presented in a continuation or divisional application, the claims of the continuation or divisional application may be

subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Where a restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. *In re Ziegler*, 44 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

**Group V contains claims directed to the following patentably distinct species of the claimed invention:**

Species a - non-orthogonally arranged beam splitters, to which claim 108 is directed; and

Species b - orthogonally arranged beam splitters, to which claim 111 is directed.

**If Applicants elect Group V**, then Applicants are required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 18 and 98 are generic to claims 108 and 111.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims

are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

In light of the complexity of the restriction requirement, a telephone call to request an oral election to the above restriction requirement was not made.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Juba whose telephone number is (571) 272-2314. The examiner can normally be reached on Mon.-Fri. 9 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Drew Dunn whose number is (571) 272-2312 and who can be reached on Mon.- Thu., 9 – 5.

The centralized fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306 for *all* communications.



JOHN JUBA, JR.  
PRIMARY EXAMINER  
Art Unit 2872

June 7, 2004